

CLAIMS

- 5 1. Method for engaging a portable communication device in voice communication with a number of parties, comprising:
- establishing connections between the portable communication device and at least two other parties (step 202),
 - 10 - positioning the other connected parties at different positions in space in relation to the portable communication device (step 206), and
 - providing information in relation to the position of one of the other connected parties, when this connected party provides audio information over said connection (steps 208, 216),
- 15 so that the user of the device can more easily identify which party is active.
2. Method according to claim 1, further comprising the step of:
- detecting selection of a position of one of the other parties through inputs made by a user of the portable communication device, (step 204).
- 20 3. Method according to claim 1, in which the step of positioning comprises positioning in visual space, (step 206).
4. Method according to any of claims 1-3, in which the step of providing information, comprises providing visual information on a screen, (step 208).
- 25 5. Method according to any of claims 1-4, in which the step of providing information, includes providing a representation that can be associated with said one of the other parties, when said other party provides audio information over said connection, (steps 208, 216).
- 30 6. Method according to claim 4 or 5, in which the step of providing information in visual space, comprises providing text and/or image information, (step 208).
- 35 7. Method according to claim 5, in which the step of providing information, comprises providing information for actuating the provided representation, (step 208).
- 40 8. Method according to claim 6, in which the step of providing information, comprises providing information for actuating the provided text and/or image information, (step 208).
9. Method according to any of claims 1-8, in which the step of positioning comprises positioning in audio space, (step 206).

- 5 10. Method according to claim 9, in which the step of providing information includes providing audio information from said one of the other connected parties processed, based on inputs made by a user, such that the processed audio information is perceived as being positioned in space at said other party when presented by the information presentation unit, (steps 212, 216).
- 10 11. Method according to claim 9 or 10, in which the step of positioning comprises determining control information to be used when providing processing audio information, (step 206).
- 15 12. Method according to claim 10 or 11, in which the step of providing audio information in space, includes processing said audio information of one of the other parties, such that the processed audio information is perceived as being positioned in space at the position of said other party when presented by the information presentation unit, (steps 212, 216).
- 20 13. Method according to claim 12, in which the step of providing audio information including processing of audio information, includes weighting of two audio streams of said audio information, such that the processed audio information is perceived as being positioned in space at the position of said other party when presented by the information presentation unit, (steps 212, 216).
- 25 14. Method according to claim 12 or 13, further comprising the steps of providing audio information from the portable communication device to at least one of the other parties and processing said audio information including equal weighting of two audio streams of said audio information, (step 212).
- 30 15. A portable communication device (100; 402) arranged to engage in voice communication with a number of parties, comprising:
- a communication unit (102) for engaging at least two other parties in voice communication,
 - a user input unit (112), arranged to receive user inputs,
 - a control unit (106), arranged to enable positioning of the other connected parties at different positions in space, in dependence of inputs from a user on the user input unit,
 - at least one information presentation unit (108, 110), for which the control unit (106) further is arranged to provide information in relation to the position of one of the other connected parties, when said one of the other connected parties is providing audio information over a connection, so that the user of the device can more easily identify which party is active.
- 35 40 16. Portable communication device (100; 402) according to claim 15, in which the control unit further is arranged to detect selection, via the user input unit (112),

of a position of one of the other connected parties.

- 5 17. A portable communication device (100; 402) according to claim 15 or 16, in which the control unit (106), when positioning the other connected parties, is arranged to determine control information enabling positioning in audio space, for provision of audio information to be perceived as being positioned at the position of said one of the other connected parties, in space.
- 10 18. A portable communication device (100) according to claim 17, further comprising an audio processing unit (104), arranged to process the audio information from said one of the other connected parties, based on the control information, and forward the processed audio information to at least one information presentation unit (108, 110), such that the audio information is perceived as being positioned at the position in space of said party, when presented by the at least one
15 information presentation unit (108, 110).
- 20 19. A portable communication device (402) according to claim 18, wherein the audio processing unit (104) when being arranged to process the audio information, processes the information so that two differently processed audio streams of said audio information is provided.
- 25 20. A portable communication device (402) according to claim 17, wherein the communication unit is further arranged to forward said control information to an external processing unit (406), for processing audio information from said one of the other connected parties, said communication unit is being arranged to receive the processed audio information and forward, after possible further processing, said processed audio information to an information presentation unit, in a format allowing the audio information to be perceived as being positioned at the position in space of said one of the other parties, when presented by the the
30 at least one information presentation unit.
- 35 21. Portable communication device (100; 402) according to any of the preceding claims 17-20, wherein the at least one information presentation unit (108, 110), comprises at least two speakers, wherein the perceived position in space, of said one of the other connected parties, is related to the positions of the speakers.
- 40 22. A portable communication device (100; 402) according to claim 15-21, in which the control unit, when locating the other connected parties, is arranged to determine control information enabling positioning in visual space, for provision of visual information perceived to be at the position in space of said one of the other connected parties.
23. A portable communication device (100; 402) according to claim 22, in which the control unit further is arranged to determine control information for presenting a

representation of said one of the other connected parties, by using said at least one information presentation unit (108, 110).

5 24. A portable communication device (100; 402) according to claim 23, in which the control information comprises information for actuating the representation of said one of the other connected parties, by using said at least one information presentation unit (108, 110).

10 25. A portable communication device (100; 402) according to claim 15-24, wherein the at least one information presentation unit (108, 110) comprises a screen.

15 26. A portable communication device (100; 402) according to claim 15-25, wherein the user input unit comprises a screen, which screen allows the user to input information (108, 110) in the form of "drag and drop".

20 27. Communication connection device (300) arranged to assist voice communications between at least one portable communication device and at least two other parties, wherein said portable communication device receives user inputs, establishes connections between the portable communication device and said other parties, detects selections of positions of the other parties, and determines control information based on the detected selection of position of the other parties from a user, enabling positioning in audio space,

25 said communication connection device comprises:

- a transceiving unit (302, 310, 312), arranged to receive the control information,
- an audio processing unit (306), arranged to process, based on the control information received by the transceiving unit from the portable
- 30 communication device, the audio information of one of the other connected parties when said party is providing audio information,

35 said transceiving unit, further being arranged to send such processed audio information to the portable communication device, in a format allowing the audio information to be presented such that it is perceived as being positioned at the position in space of said one of the other parties.

40 28. Communication system (400) comprising:

- at least one portable communication device (402);
- at least two other communication parties (408, 410);
- at least one communication connection device (406),

in which system the at least one portable communication device (402) is arranged to engage in voice communication with at least the two other communication parties (408, 410) of the system, said at least one portable communication device (402) comprising:

- a communication unit (102) for engaging the at least two other communication parties in voice communication in said system,
- a user input unit (112), arranged to receive user inputs,
- a control unit (106), arranged to determine control information enabling positioning of the other connected parties of the system at different positions in space, in dependence of inputs from a user on the user input unit, and
- at least one information presentation unit (108, 110), for which the control unit further is arranged to provide processed audio information in relation to the position of one of the other connected parties, when said one of the other connected parties is providing audio information over a connection,

in which system, said at least one communication connection comprising:

- a transceiving unit (302, 310, 312), arranged to receive the control information,
- an audio processing unit (306), arranged to process the audio information of one of the other connected parties when said party is providing audio information, based on the control information received by the transceiving unit from the portable communication device,

said transceiving unit, further being arranged to send such processed audio information to the portable communication device, in a format allowing the audio information to be presented such that it is perceived as being positioned at the position in space of said one of the other parties.